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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/966,404	09/28/2001	Lalitha Agnihotri	US010447	4387

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BRIARCLIFF MANOR, NY 10510

EXAMINER
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JACKSON, JAKIEDA R

ART UNIT	PAPER NUMBER
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2626

MAIL DATE	DELIVERY MODE
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08/28/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

**Application No.**

09/966,404

**Applicant(s)**

AGNIHOTRI ET AL.

**Examiner**

Jakieda R. Jackson

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 03 April 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on April 3, 2007 has been entered.

### ***Response to Arguments***

2. Applicants argue that Chang fails to teach or reasonably suggest sequentially translating said portions of text data in accordance with a variable level of complexity of translation to a target language. Applicant's arguments are persuasive, but are moot in view of new grounds of rejection.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 1-2, 8-13, 16-19, 23, 26 and 28** are rejected under 35 U.S.C. 103(a) as being obvious over Chang (USPN 5,543,851) in view of Umpleby et al. (PGPUB 2003/0061026), hereinafter referenced as Umpleby.

As to **claim 1**, Chang teaches

A method for processing an audio/video signal and an auxiliary information signal comprising text data that is temporally related to the audio/video signal (col. 2 line 64), said method comprising the steps of:

sequentially analyzing portions of said text data in an original language in which said text data is received (col. 6 lines 24-31); and

displaying said portions of translated text data while simultaneously playing the audio/video signal that is temporally related to each of the portions (column 3, lines 10-12 with column 2, lines 63-65 and figure 1, elements 22 and 24), but does not specifically teach sequentially translating said portions of text data in accordance with a variable level of complexity of translation to a target language according with a variable level of complexity of translation to a target language.

Umpleby teaches a method comprising sequentially translating said portions of text data in accordance with a variable level of complexity of translation to a target language according with a variable level of complexity of translation to a target language (classify words by their level of difficulty; columns 2-3, paragraphs 0013-0025 with column 7, paragraphs 0079-0081), to address the level of reading comprehension of a particular audience.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Chang's method as described above, to adept comprehending one species of English over another, in order to increase the readability of a body of text for a particular audience 9column 1, paragraphs 0003-0005).

As to **claim 2**, Chang teaches

further comprising the step of receiving said audio/video signal and said auxiliary information signal (col. 3 lines 10-12; col. 2 lines 63-64; and Fig. 1 elements 22 and 24); separating said video signal into an audio component and a video component (col. 3 lines 5-10); and filtering said text data from said auxiliary information signal (col. 3 lines 10-12).

As to **claim 8**, Chang teaches

wherein said text data is speech-to-text transcriptions in said video component (closed caption text, col. 2 line 64).

As to **claim 9**, Chang teaches

wherein said synchronized audio/video signal is a radio/television signal (Figs. 1 elements 22-24).

As to **claim 10**, Chang teaches

wherein said audio/video signal and said auxiliary information signal are received as an integrated signal and said method further comprises the step of separating the integrated signal into an audio component, a video component and an auxiliary information component (col. 2 lines 59-64).

As to **claim 11**, Chang teaches

wherein said text data is separated from other auxiliary data (col. 5 lines 39-45; col. 3 lines 11-13 and col. 4 lines 27-39; the second operational mode has the auxiliary data used for selecting text for processing in response to user commands, auxiliary data is the definition of a word).

As to **claim 12**, Chang teaches

wherein said audio component, said video component and said auxiliary information component are synchronized (col. 3 lines 19-20 and col. 5 lines 39-45; synchronization generator provides signal to the closed caption decoder for timing the processing of the encoded radio signal, the encoded radio signal are video/audio signal and caption data, the caption data is the text and the auxiliary information is the definition of the text).

As to **Claim 13**, Chang in view of Umpleby teaches a method as described in claim 1. In addition, Umpleby teaches setting a personal preference level for determining the level of complexity of translation (level of difficulty chosen).

As to **claim 16**, it is interpreted and rejected for the same reasons as set forth in claim 1 in addition Chang teach

An apparatus for processing an audio/video signal and an auxiliary information component comprising text data that is temporally related to the audio/video signal (col. 2 line 64), said apparatus comprising:

one filter for separating said signals into an audio component, a video component and related text data (col. 2 lines 50-53 and lines 59-63);

a microprocessor for analyzing portions of said text data in an original language in which said text data is received (col. 3 lines 11-12 and col. 4 lines 27-39) and formatting the video component and related translated text data for synchronized output (col. 3 lines 19-20 and lines 42-45).

As to **claim 17**, Chang teaches

further comprising: a receiver for receiving said signals; and a filter for extracting text data from said auxiliary information component (col. 2 lines 50-53 and lines 59-64; the tuner acts as a receiver and also filters audio/video and caption data, which has the auxiliary data, to a receiver).

As to **claim 18**, Chang teaches

further comprising a memory for storing a plurality of language databases, wherein said language databases include a metaphor interpreter (Fig. 2 element 44 and col. 6 lines 24-34; identifier values are used as metaphor interpreter such as "entertainment" or "infrastructure").

As to **claim 19**, Chang in view of Umpleby teach everything as claimed in claim 1. In addition, Umpleby teaches language database including a thesaurus (column 4, paragraphs 0039-0046).

As to **claim 23**, Chang in view of Umpleby teaches everything as claimed in claim 16. In addition, Umpleby teach complexity of translation setting a personal preference level for determining a level of difficulty (level of difficulty is chosen; column 7, paragraph 0079-0081).

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As to **claim 26**, it is interpreted and rejected for the same reasons as set forth in claim 1. In addition, Chang teach

A receiver for processing a synchronized audio/video signal containing text data that is temporally related to said audio/video signal, said receiver comprising:

input means for receiving said signal (col. 3 line 43-44); and

a microprocessor (col. 3 line 43-44) for analyzing said text data in an original language in which said signal was received (col. 2 line 64; the sliced data text is in the original or first language).

As to **claim 27**, it is interpreted and rejected for similar reasons as set forth in claims 1, 16 and 26. In addition, Umpleby teaches replacing ambiguities in said analyzed portions of text data with standard terms representing intended meanings of said ambiguities in accordance with a variable level of complexity of translation (column 7, paragraphs 0079-0081).

5. **Claims 3-7, 20-22, and 28** are rejected under 35 U.S.C. 103(a) as being unpatentable over Chang in view of Umpleby and in further view of Carbonell et al. (5,677,835).

As to **claim 3**, Chang in view of Umpleby does not explicitly teach repeating term with different term of similar meaning.

However, Carbonell et al. do teach



wherein the step of sequentially analyzing said portions of text data includes the step of determining where a term present in said portion of text data under analysis is repeated and if the term is determined to be repeated, replacing the term with a different term of similar meaning in all occurrences after a first occurrence of the term (col. 10 lines 32-54).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to implement repeating term with different term of similar meaning of Carbonell et al. into the method of Chang in view of Umpleby, because Carbonell et al. teach that signals have to be analyzed since meaning lies under the surface of textual signals, col. 10 lines 35-40.

As to **claims 4 and 28**, Chang in view of Umpleby teaches everything as claimed in claim 1. In addition Chang does teach determining whether one of a metaphor is present in said portion of text data (Fig. 2 element 44 and col. 6 lines 24-34; Fig. 7a element 706; identifier values are used as metaphor interpreter such as "entertainment" or "infrastructure").

Chang in view of Umpleby does not explicitly teach determining whether one of a colloquialism is present in said portion of text data.

However, Carbonell et al. do teach

wherein the step of sequentially analyzing said portions of text data includes the step of determining whether one of a colloquialism is present in said portion of text data under consideration, and replacing said ambiguity with standard terms representing the intended meaning (col. 10 lines 32-54).

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Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to implement analyzing text data of Carbonell et al. into the method of Chang in view of Umpleby, because Carbonell et al. teach that this will allow vocabulary items to reflect clear ideas and be appropriate for the target readership, col. 13 lines 55-56

As to **claim 5**, Chang in view of Umpleby teaches everything as claimed in claim 1. In addition Chang does teach determining whether one of a metaphor is present in said portion of text data (Fig. 2 element 44 and col. 6 lines 24-34; Fig. 7a element 706; identifier values are used as metaphor interpreter such as "entertainment" or "infrastructure").

Chang in view of Umpleby does not explicitly teach determining whether one of a colloquialism is present in said portion of text data.

However, Carbonell et al. do teach further comprising the step of sequentially analyzing said portions of translated text data and determining whether an ambiguity defined by one of a colloquialism and metaphor is present in said portions of translated text data, and replacing said ambiguity with standard terms representing the intended meaning (col. 10 lines 31-67 and col. 11 lines 31-65).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to implement determining whether one of colloquialism and metaphor is present in translated text of Carbonell et al. into the method of Chang in view of Umpleby, because Carbonell et al. teach that colloquial terms can inhibit communication and that while not necessarily mandatory for MT-oriented processing,

are nevertheless important guidelines for document production in general, col. 13 lines 55-57.

As to **claim 6**, Chang in view of Umpleby does not explicitly teach determining parts of speech of words.

However, Carbonell et al. do teach wherein the step of sequentially analyzing said portions of text data includes the step of determining parts of speech of words in said portion of text data under consideration and displaying the part of speech with the displayed translated text data (col. 13 lines 1-15 and col. 22 lines 1-20).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to implement determining parts of speech of words of Carbonell et al. into the method of Chang in view of Umpleby, because Carbonell et al. teach that this will allow for clarification of ambiguity, col. 22 lines 8-11.

As to **claim 7**, Chang in view of Umpleby does not explicitly teach cultural and historical knowledge database.

However, Carbonell et al. do teach further comprising the step of analyzing said portions of text data and said portions of translated text data by consulting a cultural and historical knowledge database and displaying the analysis results (col. 15 lines 45-67).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to implement cultural and historical knowledge database of Carbonell et al. into the method of Chang in view of Umpleby, because Carbonell et al.

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teach that a knowledge-based machine translation must be supported by world knowledge and by linguistic semantic knowledge about meanings of lexical units and their combinations, col. 15 lines 45-50.

As to **claim 20**, Chang in view of Umpleby does not explicitly teach storing a plurality of cultural/historical knowledge databases.

However, Carbonell et al. do teach wherein said memory further stores a plurality of cultural/historical knowledge databases cross-referenced to said language database (col. 15 lines 45-67).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to implement storing cultural/historical knowledge databases of Carbonell et al. to the apparatus of Chang in view of Umpleby, because Carbonell et al. teach that a knowledge-based machine translation must be supported by world knowledge and by linguistic semantic knowledge about meanings of lexical units and their combinations, col. 15 lines 45-50.

As to **claim 21**, Chang in view of Umpleby does not explicitly teach parser software for describing said portions of text data by stating its part of speech.

However, Carbonell et al. do teach wherein the microprocessor further comprises parser software for describing said portions of text data by stating its part of speech, form and syntactical relationships in a sentence (col. 27 lines 35-57 and col. 28 lines 5-25).

Therefore, it would have been obvious to one of ordinary skill in the art at the

time of the invention to implement parser software for describing said portions of text data by stating its part of speech of Carbonell et al. to the apparatus of Chang in view of Umpleby, because Carbonell et al. teach that, will allow source and target languages to be selected while requiring minimal modifications to the computational structure, col. 27 lines 35-57.

As to **claim 22**, Chang do teach determining whether one of a metaphor is present in said portion of text data (Fig. 2 element 44 and col. 6 lines 24-34; Fig. 7a element 706; identifier values are used as metaphor interpreter such as "entertainment" or "infrastructure")

Chang in view of Umpleby does not explicitly teach determining whether one of a colloquialism is present in said portion of text data.

However, Carbonell et al. do teach wherein the microprocessor determines whether one of a colloquialism is present in said portion of text data under consideration and said portions of translated text data, and replaces Said ambiguity with standard terms representing the intended meaning (col. 10 lines 32-54).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to implement determining whether one of a colloquialism and metaphor is present in said portion of text data under consideration of Carbonell et al. to the apparatus of Chang in view of Umpleby, because Carbonell et al. teach that this will allow vocabulary items to reflect clear ideas and be appropriate for the target readership, col. 13 lines 55-56, col. 13 lines 54-60 and col. 10 lines 41-44.

6. **Claims 14-15 and 24-25** are rejected under 35 U.S.C. 103(a) as being unpatentable over Chang in view of Umpleby and in further view of Parry et al. (6,077,085), hereinafter referenced as Parry.

As to **claim 14**, Chang in view of Umpleby does not explicitly teach complexity of translation is automatically increased.

However, Parry et al. does teach wherein the level of complexity of translation is automatically increased based on a predetermined number of occurrences of similar terms (col. 12 lines 52-60 and col. 2 lines 49-61)

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to implement complexity of translation is automatically increased of Parry to the method of Chang in view of Umpleby because Parry et al. teach that this Would test and enhance comprehension of grammar, vocabulary or phrase memorization concepts, col. 11 lines 11-15.

As to **claim 15**, Chang teach complexity of translation (col. 3 lines 11-12 and col. 4 lines 27-39).

Change in view of Umpleby does not explicitly teach the complexity of translation is automatically increased on a predetermined period of time.

However, Parry et al. does teach wherein the complexity of translation is automatically increased on a predetermined period of time (col. 15 lines 55-67; Fig. 8, and col. 2 lines 49-61).

Therefore, it would have been obvious to one of ordinary skill in the art at the

time Of the invention to implement the complexity of translation is'automatically increased on a predetermined period of time of Parry to the method of Chang in view of Umpleby because Parry et al. teach that this would determine how well the student knows the concepts associated with a given item, col. 15 lines 55-67.

As to **claim 24**, Chang teach complexity of translation (col. 3 .lines 11-12 and col. 4 lines 27-39).

Chang in view of Umpleby does not explicitly teach automatically increases the level of complexity of translation.

However, Parry et al. does teach wherein the microprocessor automatically increases the level of complexity of translation based on a predetermined number of occurrences of similar terms (col. 12 lines 52-60 and col. 2 lines 49-61).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to implement the automatically increases the level of complexity of translation of Parry to the method of Chang in view of Umpleby because Parry et al. teach that this would test and enhance comprehension of grammar, vocabulary or phrase memorization concepts, col. 11 lines 11-15

As to **claim 25**, Chang teach complexity of translation (col. 3 lines 11-12 and col. 4 lines 27-39).

Chang in view of Umpleby does not explicitly teach automatically increases the level of complexity of translation based on a predetermined period of time.

However, Parry et al. does teach wherein the microprocessor automatically increases the level of complexity of translation based on a predetermined period of time (col. 15 lines 55-67, Fig. 8, and col. 2 lines 49-61).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to implement automatically increases the level of complexity of translation based on a predetermined period of time of Parry to the method of Chang in view of Umpleby because Parry et al. teach that this would determine how well the student knows the concepts associated with a given item, col. 15 lines 55-67.

### ***Conclusion***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jakieda R. Jackson whose telephone number is 571-272-7619. The examiner can normally be reached on Monday-Friday from 5:30am-2:00pm.

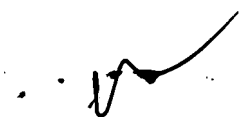
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Hudspeth can be reached on 571-272-7843. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JRJ  
August 21, 2007



**DAVID HUDSPETH**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER**